

Tuberculosis in San Diego County

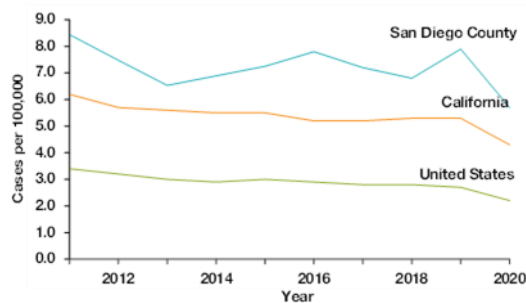
What Is Tuberculosis?

Active tuberculosis (TB) is a disease caused by the bacterium *Mycobacterium tuberculosis*. TB usually affects the lungs and spreads through the air when a person sick with TB coughs. Not everyone infected with the bacteria becomes sick. Those who have been infected, but are not sick, have latent tuberculosis infection (LTBI). Persons with LTBI can become sick with active TB, in the future, if they are not treated.

The Human Toll of Tuberculosis

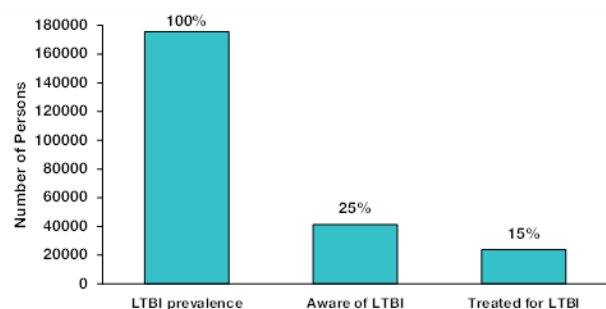
- In 2021, San Diego County reported 201 new active TB cases, representing a case rate of 6.1 cases per 100,000, and slightly higher than in 2020 (192 cases, 5.7 cases per 100,000), when a decrease of more than 20% from the prior 5-year average occurred, during the first year of the pandemic.
- Multiple pandemic related factors likely contributed to the 2020-2021 decrease, including decreased care seeking, decreased detection in care, masking, and changes in travel, migration, and time spent outside the home.
- San Diego experienced a sharper decline from 2019 to 2020 compared with the US and California, due to fluctuating, rather than level recent TB incidence. Over the past decade, San Diego County's annual TB incidence was consistently higher than the California rate and more than twice the national rate (Figure 1).
- Active TB has a high-associated mortality of approximately 10%.
- Children under age five are at the highest risk of severe complications, including brain and spinal involvement that can lead to lifelong disability.
- While infectious, isolation from family, friends, and exclusion from the workplace results in stigma, lost wages, and loss of employment, putting those with TB at risk for poverty and homelessness.
- An estimated 85% of active TB cases are due to progression of LTBI to active TB.
- About 175,000 San Diegans have LTBI, which can progress to active TB without treatment. This is the equivalent to nearly two thirds the population of Chula Vista.

Figure 1. Incidence of active TB disease in San Diego County, California and the United States



TB incidence in San Diego County remains higher than in California and more than 2 times the overall rate for the United States.
Source: County of San Diego, date

Figure 2. Approximate estimates of LTBI prevalence, awareness and treatment, San Diego County, 2019



Estimated using methodology from the California TB Control Branch [Report on Tuberculosis in California, 2019](#) and associated Data Tables, applying national level data from the National Health and Nutrition Examination Survey, 2011-2012, to the San Diego County population.
Source: County of San Diego, date

The Highest Rates and Numbers of Tuberculosis Are in the South and Central Regions of the County

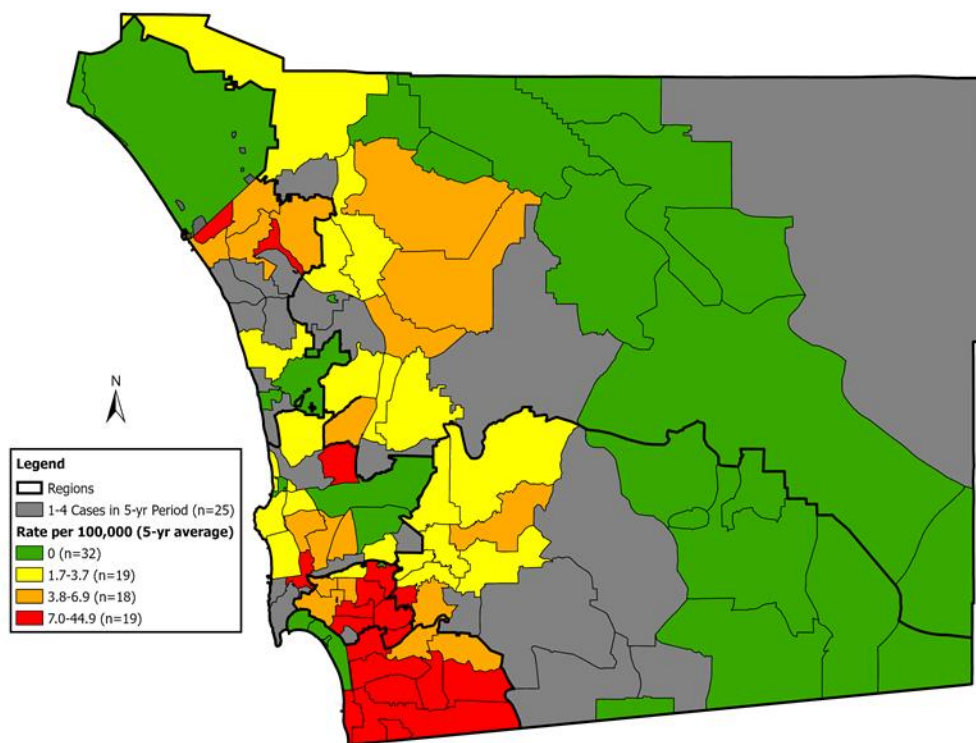
- In 2021, 72% of San Diego County TB cases occurred in persons who were born outside the U.S.
- During 2017-2021, the TB rate among persons born outside the U.S. (20.9) was nearly 9 times higher than the rate among U.S.-born persons (2.4).
- In 2021, the most common medical risk factor was diabetes (27%).

Why Is Now the Right Time to Strive for TB Elimination?

- TB Elimination is defined as less than 1 case of active TB disease per one million population annually.
- Of the estimated 175,000 San Diego County residents with LTBI, only 25% are aware of their infection and only 15% have been treated (Figure 2).
- Because an estimated 85% of cases arise from reactivation of LTBI, treating LTBI will prevent many TB cases in San Diego County.
- In the last decade, there has been widespread adoption of blood tests to diagnose LTBI which are more specific than the traditional TB skin test, resulting in fewer false positives.

- Preventive TB screening recommendations from major medical organizations, including the U.S. Preventive Services Task Force Grade B TB screening recommendation for adults, support testing of **populations at risk**.
- New **short-course treatment** regimens for LTBI are better tolerated by patients, less expensive, and more likely to be completed by patients.
- In 2021, San Diego County's TB Elimination Initiative, a public-private partnership launched in 2019, initiated implementation plan activities to address the key areas of finding and engaging high-risk persons and populations to optimize LTBI treatment, promoting LTBI as a major public health concern, developing an LTBI surveillance system, improving access to testing and treatment, and securing sufficient resources for implementation efforts.

Figure 3. Active TB incidence by zip code, San Diego County, 2016-2020



Tuberculosis Rates by Zip Code, San Diego County, 2016-2020
 Source: County of San Diego, Health and Human Services Agency, Tuberculosis Control, RVCT Database
 Map Date: December 13, 2021